SCR & SER Forest Health Update

Wisconsin DNR, Forest Health Protection Unit July 5, 2005 Vol. 2 No. 3

CONTENTS

If you would like to subscribe to this newsletter, please contact Kyoko Scanlon at Kyoko.Scanlon@dnr.state.wi.us

About this newsletter

"SCR & SER Forest Health Update" is an informal newsletter created by the Wisconsin DNR, Forest Health Protection Unit. The purpose of this newsletter is to provide foresters in the South Central Region and Southeastern Region with regional up-to-date forest health information. This newsletter will be issued monthly during the growing season and on an irregular basis during winter as topics come up.

We appreciate your comments

Thank you for providing us with your comments on the previous issues of this newsletter. Based on your feedback, we decided to continue to include color photos in our newsletter though we will make special efforts to keep the file size relatively small. If you need a text only version, please let us know. We also continue to welcome your comments/suggestions on this newsletter and your reports on forest health problems you observed in your area.

Defoliation on tamarack in Waukesha Co. caused by larch casebearer - Kyoko Scanlon

Heavy defoliation of tamarack caused by the larch casebearer in the Town of Oconomowoc (photo taken on June 24, 2005)

Severe defoliation on tamarack has been observed in the Town of Oconomowoc (Section 9 & 16, T8N R17E), Waukesha Co. The defoliation was caused by a needle feeding insect, the larch casebearer (*Coleophora laricella*). The insect is native to Europe, and was introduced to Massachusetts in 1886. In Wisconsin, outbreaks of this insect occur occasionally, and thousands of acres of tamarack are defoliated. Larvae of larch casebearers mine the needles by eating inside tissues, causing the needles to curl and turn light brown. These insects spend their larval and pupal stages in a brown cigar-shaped protective case attached to a needle or a twig. Larvae hatch in July, and continue feeding until fall. They hibernate as larvae in their protective cases, and resume feeding in spring. Late summer feeding by early instar larvae causes some needle browning, however most dramatic defoliation is seen in spring when late instar larvae resume feeding. Adults are small silvery gray moths. There is one generation per year. For this spring, feeding was completed, and adult moths were found at the site on June 23.

Tamarack can usually withstand defoliation better than other conifers because of their ability to re-flush in the same growing season. Severely defoliated trees will produce a second set of needles once feeding is over. The infested trees at the site have already started to re-flush. These trees should look much greener in a few weeks. Though tamarack can tolerate defoliation better, repeated years of severe defoliation may cause branch dieback or stress trees enough to

allow attacks from other pests, such as the larch beetle (*Dendroctonus simplex*) that could cause mortality. Several species of parasites are believed to control outbreaks by the larch casebearers. Prolonged, wet weather in the spring and frost after the larvae emerge from hibernation could reduce the larval populations of the larch casebearer. Chemical treatment to control this insect is generally unnecessary in forest stands.

For more information about the larch casebearer, please visit the USDA FS website at http://www.na.fs.fed.us/spfo/pubs/fidls/larch/larch.htm.

European pine sawfly - Jane Cummings-Carlson

Populations of the European Pine Sawfly, *Neodiprion sertifer*, have been observed scattered throughout southeastern and northeastern Wisconsin. This insect feeds in small colonies on red, white, jack, Austrian and Scotch pines. Feeding is limited to last year's needles, thus trees infested for the last two years will typically contain only current year's needles. Mortality of affected trees can occur if defoliation of all one-year-old needles occurs for two or more years. This insect is in its last instar and is beginning to pupate. More information can be obtained through the University of Minnesota Center for Urban Ecology and Sustainability website at http://www.entomology.umn.edu/cues/.

(This article was published in the Wisconsin Pest Bulletin 06/20/05 issue).

Maple petiole borer - Kyoko Scanlon

Green sugar maple leaves on the ground in Poynette (Photo taken by Aaron Young)

Damage by the maple petiole borer (*Caulocampus acericaulis*) was observed in Columbia, Dane, and Green Counties. This insect attacks several species of maples, most commonly sugar maple. Larvae feed by mining in the leaf stems (petioles). Tunneled petioles break off near the leaf blade, and green leaves fall off to the ground during late May to early June. Larvae continue to feed on the remaining petiole for a while, and then drop to the ground with the petiole. They overwinter in soil. The adult maple petiole borer is a sawfly.

The maple petiole borer is one of the pests that causes damage that looks more dramatic than it really is. Trees usually produce more leaves than necessary, and they can lose up to 25% of the leaves without significant impact to tree health.

The leaf drop caused by this insect usually does not exceed more than 25-30% of the crown. Since this insect does not affect the tree health significantly, management is unnecessary. Raking and disposing fallen leaves is ineffective in reducing insect populations as insects are not in the leaves. There is a nice factsheet by UW Extension at http://cecommerce.uwex.edu/pdfs/A2699.PDF.

Euonymus Caterpillar - Mark Guthmiller

Euonymus caterpillar has been reported in the Milwaukee area, Rock County and Dodge County this year and has likely been observed elsewhere. This caterpillar feeds primarily on species of Euonymus. A Dodge County infestation was observed along a wooded fence row defoliating what is believed to be the spindle tree Euonymus, *Euonymus europaeus.* A nice write up on this pest can be found at: http://cecommerce.uwex.edu/pdfs/A3633.PDF

Webbing by Euonymus caterpillars (photo by Mark Guthmiller)

Gypsy moth updates - Mark Guthmillar

Gypsy moth activity has been relatively quiet statewide with a few isolated populations reported. In Southeast region, there have been a few reports coming in of gypsy moth in Shorewood, WI, some defoliation reported on small diameter oaks in Oak Creek, and a couple unconfirmed reports of gypsy moth on the east side of Big Cedar Lake in the town of West Bend. In the South Central region, there is a 7-10 acre infestation with heavy defoliation in a core area in and near the Armstrong Eddy park in the town of Beloit. There are reports and confirmations of additional gypsy moth activity in Dane county although no major defoliation has been reported. Individual caterpillar finds have been reported in Sauk, Columbia, and Dodge Counties.

Defoliation by the gypsy moth in the Armstrong Eddy park (Photo by Mark Guthmiller)

The gypsy moth caterpillars are starting to wind down on feeding at the Beloit site and are starting to pupate. Little additional damage is expected for this year. Very little caterpillar disease was observed this year and there is potential for building populations here next year.

A site on the north side of Madison is in the 5 and 6th instar caterpillar stage and also will likely be pupating soon. The population was large enough to cause defoliation but little was observed at this site and was partly due to some mortality of caterpillars caused by fungal and viral diseases.

The Wisconsin Department of Agriculture will be conducting aerial pheromone flake treatments starting June 25th in Green County. Grant, Iowa, Sauk and Richland Counties are also slated for pheromone treatments. For more information and specific maps go to: http://datcp.state.wi.us/arm/environment/insects/gypsy-moth/map_index.jsp

Aerial defoliation surveys are planned for the first week in July for southern Wisconsin. For more information on gypsy moth go to: www.gypsymoth.wi.gov

Oak tatters – Kyoko Scanlon

Tattered appearance on affected oak leaves

Oak tatters was again observed in Dane County this spring. Affected leaves were showing tattered or skeletal look due to reduced interveinal tissues. A second set of leaves was already produced on heavily damaged trees, making the crown appear greener.

Oak tatters was first reported in the 1980's in Iowa, and has been observed throughout the midwestern United States. The white oak group, such as white and bur oak appears to be the most severely affected, though the red oak group, hackberry and other tree species are reported to occasionally exhibit similar symptoms.

The cause of oak tatters is still uncertain. It is suspected that certain environmental conditions, such as low temperatures, frost and/or strong wind, during expansion of young leaf tissues may play a major role in damaging leaf tissue in the buds or expanding new leaves. Other suspected causes of oak tatters include insect feeding, foliar fungus, and herbicide damage, though none of which has been proven.

An experiment to test the effect of herbicides on oak tatters conducted in 2004

In 2004, an experiment was conducted at Champaign, IL to test a hypothesis that oak tatters was caused by herbicide drift from herbicide applications onto corn and soybean fields. Two-year-old potted white oak seedlings were treated with six herbicides at three concentrations. The trees were sprayed with the herbicides at three different growth stages 1) swollen bud, 2) leaves just unfolding, and 3). Expanded leaves. Oak tatters symptoms were observed on trees that were treated with metolachlor and acetochlor+atrazine, only at leaf unfolding stage. The results indicate that drift of

chloroacetamide herbicides could be a possible cause of the oak tatters. This experiment will be repeated this year. For more information about this experiment, visit http://www.plantmanagementnetwork.org/pub/php/brief/2005/tatters/.

Whatever the cause is, oak tatters doesn't seem to affect the second set of leaves. Once the new leaves fully expand, trees should look much better. There is no recommended control approach for oak tatters, except for improving or maintaining the vigor of trees by minimizing further stresses on the trees.

Pest alert: Oak tatters is available through the US Forest Service website at http://www.na.fs.fed.us/spfo/pubs/pest_al/oaktatters/oaktatters.htm. For more information about oak tatters, please visit http://dnr.wi.gov/org/land/Forestry/Fh/fhissues/tatters.htm.

Wool Sower Gall – Kyoko Scanlon


Wool sower galls and seed-like structures inside (photo by Mark Guthmiller)

Reports of fuzzy looking galls on white oaks have come in from Dane and Dodge County this spring. They look like toasted marshmallows on a stick. These galls are called wool sower galls or oak seed galls as you can find seed-like structures inside the galls when you pull apart the spongy mass. These galls are caused by a tiny wasp, *Callirhytis seminator,* and only found on white oaks. Inside the gall is a spongy mass and seed-like structures where individual wasps develop. Usually control is not necessary, and by the time galls are formed, control is ineffective. More information on wool sower gall: http://www.ces.ncsu.edu/depts/ent/notes/O&T/trees/note05/note05.

Other forest pests observed in SCR/SER
Jumping oak galls (*Neuroterus saltatorius*) - Damage on leaves of white and bur oaks was seen in Dane County.

A 100-year old honey locust killed a motorist on Monona Drive, Dane County
(from the Capital Times, June 16, 2005)

A 100-year old honey locust growing along Monona Drive in Woodland Park fell on a 29-year-old male while he was driving on May 11, 2005. He died 6 days after the incident. Severe root rot and a carpenter ant infestation are considered to be the causes of failure. An inspection of root system revealed that about two-thirds of the root system had extensive decay, but mostly concealed below the soil line. For more information about this news, please visit http://www.madison.com/tct/news/stories/index.php?ntid=43810&ntpid=2.

Please report to us…
We appreciate reports of forest health problems in your areas. Currently, there is no regional forest health specialist who deals with regional forest health problems in SCR or SER. Until the situation changes, please contact the following staff for regional forest health problems/questions. Thank you.

For general forest health issues	
Jane Cummings-Carlson (northern part of SER)	608-275-3273
Kyoko Scanlon (southern part of SER, and SCR)	608-275-3275
For gypsy moth	
Andrea Diss (Statewide issues)	608-264-9247
Mark Guthmiller (SCR/SER)	608-275-3223
Kristina Skowronski (SER)	414-263-8744(gypsy moth) or 414-263-8496(urban forestry)
Emerald ash borer hotline	1-800-462-2803
Gypsy moth hotline	1-800-642-MOTH

Forest Health web site: http://www.dnr.state.wi.us/org/land/forestry/FH/

Gypsy Moth web site: http://www.gypsymoth.wi.gov